Attorney Docket No. P70974US0
Application No. 10/559,832

Remarks/Arguments:

Claims 12-19, newly presented hereby, are pending.

Claims 1-11 are cancelled without prejudice or disclaimer.

Present (new) independent claim 12 corresponds to previously presented claim 2 (i.e., dependent claim 2 incorporated into independent claim 1), rewritten to more clearly define the instant invention, including expressly reciting the feature (inherently recited in previously presented claims) wherein the recited organomodifier is insoluble in the supercritical CO_2, as further explained below.

Present (new) claims 13-19 correspond to previously presented claims 4-10, respectively, rewritten as dependent from present (new) claim 12, directly or indirectly.

Applicants wish to thank the Examiner for expressly indicating, in the Advisory Action, withdrawal of the claims' rejection under 35 USC 112, ¶1, for lacking supporting written description.

Claims 1, 2, and 4-9 remain rejected (by the Advisory Action) under 35 USC 103(a) for allegedly being obvious over JP11080037 English abstract (Ishii) in view of US2761835 (Brown). Claim 10 remains rejected under 35 USC 103(a) for allegedly being obvious over Ishii in view of Brown and further in view of US5654347 (Khemani). Reconsideration of the rejection under §103(a), as maintained in the Advisory Action, is requested.

According to the Advisory Action (page 2), the claims remain rejected under §103(a) because:

> In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant

> relies (i.e.., the organomodifier is not soluble in the supercritical carbon dioxide) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Circ. 1993). The instant specification in fact teaches that the organomodifier is partially soluble in the supercritical carbon dioxide (Example 3 and 5). As the claimed organomodifiers are at least partially soluble in the supercritical carbon dioxide, a person having ordinary skill in the art at the time of invention would have a reasonable expectation that the process of Ishii et al., which requires the guest molecule/organomodifier to be soluble would succeed using the organomodifier of Brown. Additionally, as siliconated and fluorinated ammonium compounds have good solubility in supercritical carbon dioxide (Example 5), insolubility does not appear to be critical in the claimed process.

First of all, with all due respect, the rejection is improper because it fails to take into account the fact that the recited "organomodifier," i.e., each of the recited members of the Markush group from which it must be (alternatively) selected, is insoluble in the supercritical CO_2 as recited in the rejected claims.

Insolubility in the supercritical CO_2 is, accordingly, an inherent property of the recited "organomodifier" that must be taken into consideration when comparing the claims against the prior art, even though it is not recited in the present claims. *In re Estes*, 164 USPQ 519 (CCPA 1970). "From the standpoint of patent law, a compound and all of its properties are inseparable." *In re Papesch*, 137 USPQ 43, 51 (CCPA 1963). With all due respect, the PTO has no discretion in the matter.

Applicants observe the citation to *Van Geuns, supra*, in support of the aforesaid position "Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims." With all due respect, the PTO apparently fails to understand—and, so, incorrectly applies, the holding in *Van Geuns*.

While, indeed, *limitations* from the specification cannot be read into the claims, words in the specification are properly used during prosecution as an aid in *interpret existing claim limitations*. The PTO has been cautioned not to confuse the former with the later:

> The Commissioner confuses [1] impermissibly imputing limitations from the specification with [2] properly referring to the specification to determine the meaning of a particular word or phrase recited in a claim.

In re Donaldson Co. Inc., 29 USPQ2d 1845, 1850 (Fed. Cir. 1994).

By ignoring inherent "limitations distinguishing over the reference[s]," the rejection is in "error" and, therefore, cannot be maintained. *See Ex parte Murphy*, 217 USPQ 479, 481 (PO Bd. App. 1982). Since "the cited references do not support each limitation of [the rejected] claim[s]," the rejection is "inadequate on its face." *See In re Thrift*, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002).

Nevertheless, in a good faith effort to advance prosecution, applicants have amended the rejected claims—as (new) claims 12-19—to expressly recite the feature (inherently recited in the rejected claims) of "an organomodifier insoluble in the supercritical CO_2 and selected from the group consisting of quaternary ammonium salts, sulphonium salts, phosphonium salts, siliconated ammonium compounds, highly fluorinated ammonium compounds, precursors of said salts, and mixtures of at least two of said compounds" (emphasis added).

Secondly, the statement of rejection misinterprets the specification in alleging that "the claimed organomodifiers are at least partially soluble in the supercritical carbon dioxide ... [so]

insolubility [in supercritical CO_2] does not appear to be critical in the claimed process." The statement of rejection does correctly observe that Example 3 of the instant specification describes a procedure in which the ammonium salt used was soluble (at least partly) in the pressurized CO_2 solvent described. However, the statement of rejection contains incorrect findings with respect to Example 3 and Example 5.

Example 3 gives no indication that it is intended to describe an embodiment of applicants' (claimed) invention; in fact, it indicates just the opposite. For one thing, Example 3 is entitled "Study of the influence of CO_2 pressure on ion exchange between clay and alkylammonium in supercritical CO_2." Furthermore, consistent with it's title as describing a "Study," not an invention embodiment, Example 3 concludes—with respect to the data obtained (specification, page 6):

> This surprising observation could be the result of an increase in the polarity of CO_2 at high pressure. Secondly, this polarity could influence the dissolved ammonium/adsorbed ammonium equilibrium. The more polar the CO_2, the more soluble the ammonium salt will be in it and it will have a lower tendency to adsorb on the walls of the clay, thereby slowing the exchange reaction.

Example 5 concludes, with respect to the data obtained (specification, page 9) (emphasis added): "As in the case of the siliconated ammonium compound, the degree of cationic exchange was not high. This tends to demonstrate that the more soluble the organophilic cation is in supercritical CO2, the harder it is to incorporate it into the clay." In other words, if the process is performed such that the organophilic cation is soluble in the solvent, the process does not work; and consequently, it teaches, implicitly, that the organomodifier is insoluble in the supercritical CO_2 in accordance with the invention described and claimed in the subject application.

It is applicant's sole prerogative to define the claims. *In re Pilkington*, 162 USPQ 145, 148 (CCPA 1969). The PTO's definition of a claim limitation cannot conflict with the definition given in the specification. *In re Zletz*, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). The PTO must use the specification definition in construing the claims for comparison with the prior art.

> When the applicant states the meaning that the claim terms are intended to have, the claims are examined with that meaning, in order to achieve a complete exploration of the applicant's invention and its relation to the prior art.

Zletz, 13 USPQ2d at 1322. "It is axiomatic that, in proceedings before the PTO, claims in an application are to be given their broadest reasonable interpretation consistent with the specification, . . . and that claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Bond*, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990) (emphasis added).

While claims are to be given their broadest reasonable interpretation during prosecution, the definition of a claim limitation given by the PTO cannot be different than would be given by one of ordinary skill in the art. *In re Cortright*, 49 USPQ2d 1464 (Fed. Cir. 1999). *In re Morris*, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997) ("the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art"). MPEP 2111.01 ("the words of a claim . . . must be read as they would be interpreted by those of ordinary skill in the art.").

The purpose of the claims is not to exclude non-working embodiments—in which a compound mixed in the presence pressurized CO_2 with a montmorillonite type clay is (completely or partially) soluble in the pressurized CO_2. *In re Smythe*, 178 USPQ 279, 286 (CCPA 1973):

> As we have said before, it is almost always possible to so construe a claim as to have it read on non-working embodiments, [citation omitted], but the alternative of requiring an applicant to be so specific in his claims "as to exclude materials known to be inoperative . . . would result in claims which would fail to comply with 35 U.S.C. 112, second paragraph, because they would be so detailed as to obscure, rather than to particularly point out and distinctly claim, the invention. [Citations omitted.]

The "use of materials which might prevent achievement of the [claim] objective ... can hardly be said to be within the scope of the claims." *In re Geerdes*, 180 USPQ 789, 793 (CCPA 1974).

In view of the foregoing amendments to the claims and remarks, the rejection of claims 1, 2, and 4-9 under §103(a) based on Ishii in view of Brown is overcome. Withdrawal of the rejection appears to be in order.

In the rejection of claim 10, Khemani is relied on only as (allegedly) meeting the limitation to a "biodegradable polyester foam ... having a homogeneous, substantially regular, fine and closed cellular structure" recited in the claim. As such, the reference neither teaches nor suggests anything that would cure the fatal deficiency of the combined Ishii and Brown teachings, in meeting the clay modification process—and the organomodified clay obtained thereby—in accordance with rejected (and present) claims, as explained above.

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In view of the foregoing amendments to the claims and remarks, the rejection of claim 10 under §103(a) based on Ishii in view of Brown and further in view of Khemani is overcome. Withdrawal of the rejection appears to be in order.

Favorable action is requested.

Respectfully submitted,

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